an objective lens structurally configured to receive a reflected light applied from the light source and reflected on the surface of the object to be measured, the objective lens being located at a position opposite to the surface of the object to be measured;

an illumination switchover member structurally configured to switch over both bright-field illumination and dark-field illumination, the bright-field illumination being that in which the light from the light source is made parallel with an optical axis of the objective lens and applied to the object to be measured through the objective lens, and the dark-field illumination being that in which the light from the light source is made ring-shaped and applied obliquely with respect to the optical axis of the objective lens such that there is a focus on the surface of the object to be measured, and the illumination switchover member being provided in a light path between the light source and the object to be measured;

a light detection member structurally configured to detect a component incident on the objective lens from a parallel direction with the optical axis of the objective lens in the reflected light received by the objective lens and obtaining a light quantity thereof; and

a rotatable disc-shaped plate provided in an optical path between the objective lens and the light detection member, and

the surface inspection method characterized by the steps of observing an abnormal portion of the object to be measured with a naked eye of a user of the surface inspection apparatus while varying an angle in which a difference from a normal portion is observed, selecting a condition of the angle in which the difference from the normal portion can be notably distinguished, and using the selected condition of the angle as an irradiation angle for the light.

18. (New) The surface inspection method characterized in using the surface inspection apparatus according to claim 17, wherein the illumination switchover member

comprises a bright-field/dark-field illumination switchover slide which is attached so as to be slidable in a sliding direction which perpendicularly intersects an optical axis of the light from the light source and the optical axis of the objective lens, and along the sliding direction, a circular half-mirror portion for the bright-field illumination and a ring-shaped fully-reflective-mirror portion for the dark-field illumination are provided in parallel with each other, an inner portion of the ring-shaped fully-reflective-mirror portion for the dark-field illumination being a light-pass portion, such that on a periphery of the objective lens, a ring-shaped dark-field illumination lens is provided, and the ring-shaped dark-field illumination lens is structurally configured such that a light reflected on the ring-shaped fully-reflective-mirror portion in a direction of the optical axis of the objective lens is applied from an oblique direction in order that there is a focus on the surface of the object to be measured.

19. (New) The surface apparatus method characterized in using the surface inspection apparatus according to claim 18, wherein:

in the ring-shaped dark-field illumination lens, plural kinds of various refractive indices are provided, and by properly selecting and using the plural kinds of various refractive indices, either the irradiation angle to the surface of the object to be measured or the irradiation angle for the light with respect to the optical axis of the objective lens can be adjusted.

20. (New) The surface inspection method characterized in using the surface inspection apparatus according to claim 17, wherein the dark-field illumination is employed by the illumination switchover member.

21. (New) The surface inspection method characterized in using the surface inspection apparatus according to claim 17, wherein the light detection member comprises a

calculation member structurally configured to convert a light quantity of a light having passed through one of a plurality of openings in the rotatable disc-shaped plate on a basis of a light quantity detected when a standard sample is used as the object to be measured.

22. (New) The surface inspection method characterized in using the surface inspection apparatus of claim 17, wherein the surface of the object to be measured is irradiated with a light to produce an irradiation light so that the irradiation light is reflected on the surface of the object to be measured to produce a reflected light, and in the reflected light, a component parallel with the optical axis of the objective lens which is provided at the position opposite to the object to be measured is made incident on the rotatable disc-shaped plate through the objective lens to produce an incident light, and in the incident light, only a component having passed through one of a plurality of openings of the rotatable disc-shaped plate from the objective lens is received to produce a received light, and a light quantity of the received light is obtained.

23. (New) The surface inspection method characterized in using the surface inspection apparatus according to claim 17, wherein the surface of the object to be measured is irradiated with a light to produce an irradiation light so that the irradiation light is reflected on the surface of the object to be measured to produce a reflected light, and in the reflected light, only a component which is in almost one direction is made incident on the rotatable disc-shaped plate through a tubular member to produce an incident light, and in the incident light, a light quantity of only a component having passed through one of a plurality of openings of the rotatable disc-shaped plate from the tubular member is obtained.

24. (New) The surface inspection method characterized in using the surface inspection apparatus according to claim 17, wherein the surface of the object to be measured is irradiated with a light to produce an irradiation light such that the irradiation light is

reflected on the surface of the object to be measured to produce a reflected light, and the reflected light is made incident on the rotatable disc-shaped plate through an optical fiber cable to produce an incident light, and in the incident light, a light quantity of only a component having passed through one of a plurality of openings of the disc-shaped plate from the optical fiber cable is obtained.

25. (New) The surface inspection method characterized in using the surface inspection apparatus according to claim 22, wherein a light detection extent in the surface of the object to be measured is controlled by changing a size of one of the plurality of openings of the rotatable disc-shaped plate and a magnification of the objective lens.

26. (New) The surface inspection method characterized in using the surface inspection apparatus according to claim 23, wherein a light detection extent in the surface of the object to be measured is controlled by changing a size of one of the plurality of openings of the rotatable disc-shaped plate and a magnification of the objective lens.

27. (New) The surface inspection method characterized in using the surface inspection apparatus according to claim 24, wherein a light detection extent in the surface of the object to be measured is controlled by changing a size of one of the openings of the rotatable disc-shaped plate and a magnification of the objective lens.

28. (New) The surface inspection method characterized in using the surface inspection apparatus according to claim 22, wherein the light quantity of the received light is converted on a basis of a light quantity detected when a standard sample is used as the object to be measured.

29. (New) The surface inspection method characterized in using the surface inspection apparatus according to claim 17, wherein the object to be measured is made of a synthetic resin.

30. (New) A surface inspection method characterized in using a surface inspection apparatus, the surface inspection apparatus comprising:

light source applying means for applying a light to a surface of an object to be measured;

objective lens receiving means for receiving a reflected light applied from the light source applying means and reflected on the surface of the object to be measured, the objective lens receiving means being located at a position opposite to the surface of the object to be measured;

illumination switchover means for switching over both bright-field illumination and dark-field illumination, the bright-field illumination being that in which the light from the light source applying means is made parallel with an optical axis of the objective lens receiving means and applied to the object to be measured through the objective lens receiving means, and the dark-field illumination being that in which the light from the light source applying means is made ring-shaped and applied obliquely with respect to the optical axis of the objective lens receiving means such that there is a focus on the surface of the object to be measured, and the illumination switchover means being provided in a light path between the light source applying means and the object to be measured;

light detection means for detecting a component incident on the objective lens receiving means from a parallel direction with the optical axis thereof in the reflected light received by the objective lens receiving means and obtaining a light quantity thereof; and

a rotatable disc-shaped plate provided in an optical path between the objective lens receiving means and the light detection means,

the surface inspection method characterized by the steps of observing an abnormal portion of the object to be measured with a naked eye of a user of the surface inspection

apparatus while varying an angle in which a difference from a normal portion is observed, selecting a condition of the angle in which the difference from the normal portion can be notably distinguished, and using the selected condition of the angle as an irradiation angle for the light.

31. (New) The surface inspection method characterized in using the surface inspection apparatus according to claim 30, wherein the illumination switchover means comprises a bright-field/dark-field illumination switchover slide which is attached so as to be slideable in a sliding direction which perpendicularly intersects an optical axis of the light from the light source applying means and the optical axis of the objective lens receiving means, and along the sliding direction, a circular half-mirror portion for the bright-field illumination and a ring-shaped fully-reflective-mirror portion for the dark-field illumination are provided in parallel with each other, an inner portion of the ring-shaped fully-reflective-mirror portion for the dark-field illumination being a light-pass portion, such that on a periphery of the objective lens receiving means, a ring-shaped dark-field illumination lens is provided, and the ring-shaped dark-field illumination lens is structurally configured such that a light reflected on the ring-shaped fully-reflective-mirror portion in a direction of the optical axis of the objective lens receiving means is applied from an oblique direction in order that there is a focus on the surface of the object to be measured.

32. (New) The surface inspection method characterized in using the surface inspection apparatus according to claim 31, wherein in the ring-shaped dark-field illumination lens, plural kinds of various refractive indices are provided, and by properly selecting and using the plural kinds of various refractive indices, either the irradiation angle to the surface of the object to be measured or the irradiation angle for the light with respect to the optical axis of the objective lens receiving means can be adjusted.

33. (New) The surface inspection method characterized in using the surface inspection apparatus according to claim 30, wherein the dark-field illumination is employed by the illumination switchover means.

34. (New) The surface inspection method characterized in using the surface inspection apparatus according to claim 30, wherein the light detection means comprises calculation means for converting a light quantity of a light having passed through one of a plurality of openings in the rotatable disc-shaped plate on a basis of a light quantity detected when a standard sample is used as the object to be measured.

35. (New) The surface inspection method characterized in using the surface inspection apparatus of claim 30, wherein the surface of the object to be measured is irradiated with a light to produce an irradiation light so that the irradiation light is reflected on the surface of the object to be measured to produce a reflected light, and in the reflected light, a component parallel with the optical axis of the objective lens receiving means which is provided at the position opposite to the object to be measured is made incident on the rotatable disc-shaped plate through the objective lens receiving means to produce an incident light, and in the incident light, only a component having passed through one of a plurality of openings of the rotatable disc-shaped plate from the objective lens receiving means is received to produce a received light, and a light quantity of the received light is obtained.

36. (New) The surface inspection method characterized in using the surface inspection apparatus according to claim 30, wherein the surface of the object to be measured is irradiated with a light to produce an irradiation light so that the irradiation light is reflected on the surface of the object to be measured to produce a reflected light, and in the reflected light, only a component which is in almost one direction is made incident on the rotatable disc-shaped plate through a tubular member to produce an incident light, and in the incident

light, a light quantity of only a component having passed through one of a plurality of openings of the rotatable disc-shaped plate from the tubular member is obtained.

37. (New) The surface inspection method characterized in using the surface inspection apparatus according to claim 30, wherein the surface of the object to be measured is irradiated with a light to produce an irradiation light such that the irradiation light is reflected on the surface of the object to be measured to produce a reflected light, and the reflected light is made incident on the rotatable disc-shaped plate through an optical fiber cable to produce an incident light, and in the incident light, a light quantity of only a component having passed through one of the plurality of openings of the rotatable disc-shaped plate through the optical fiber cable is obtained.

38. (New) The surface inspection method characterized in using the surface inspection apparatus according to claim 35, wherein a light detection extent in the surface of the object to be measured is controlled by changing a size of one of the plurality of openings of the rotatable disc-shaped plate and a magnification of the objective lens receiving means.

39. (New) The surface inspection method characterized in using a surface inspection apparatus according to claim 36, wherein a light detection extent in the surface of the object to be measured is controlled by changing a size of one of the plurality of openings of the rotatable disc-shaped plate and a magnification of the objective lens receiving means.

40. (New) The surface inspection method characterized in using the surface inspection apparatus according to claim 37, wherein a light detection extent in the surface of the object to be measured is controlled by changing a size of one of the plurality of openings of the rotatable disc-shaped plate and a magnification of the objective lens receiving means.

41. (New) The surface inspection method characterized in using the surface inspection apparatus according to claim 35, wherein the light quantity of the received light is